

# Operating Systems

## Components of OS (II)

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## Kernel

- ✓ File manager
- ✓ Device Drivers
- ✓ Memory manager

# Components of OS (II)

## File manager

- ✓ Coordinate the use of the machine's mass storage facilities.
- ✓ Where each file is located on mass storage,
- ✓ Which portion of mass storage is available
- ✓ Files can be grouped together into directory/folder.
- ✓ User can see directories files using windows explorer.

# Components of OS (II)

## Device Drivers

- ✓ Software units that communicate with controllers or sometimes directly to peripheral devices.
- ✓ Translates the generic requests to specific steps.
- ✓ Generic OS can be customized for particular peripheral device by

# Components of OS (II)

## Memory manager

- ✓ Coordination with main memory.
- ✓ Single user vs Multitasking needs:
- ✓ Which areas are free
- ✓ Which areas are occupied
- ✓ Which memory is assigned to which application.
- ✓ Assigning memory space

# Components of OS (II)

## Paging

- ✓ When available memory is less than the requirement, OS gets some space from mass storage and rotates data and program back and forth between main memory and mass storage called Paging.
- ✓ Uniform size pages.

# Components of OS (II)

## Virtual Memory

- ✓ The memory taken from secondary storage during paging is termed as Virtual Memory.

# Summary

## Components of OS (II)

- ✓ .File Manager
- ✓ Device Drivers
- ✓ Memory Manager